

WHAT IS CLAIMED IS:

5 1. A method for transmitting a dedicated physical data channel signal over a dedicated physical data channel in the absence of transmission data to be transmitted over the dedicated physical data channel in order to properly maintain a target SIR (Signal-to-Interference Ratio) when there exists new transmission data after the absence of the transmission data in a CDMA (Code Division Multiple Access) mobile communication system, comprising the steps of:

10 generating a dummy bit generation request signal in the absence of the transmission data; and

upon receipt of the dummy bit generation request signal, generating a dummy bit stream, and transmitting a dedicated physical data channel signal created by attaching the CRC (Cyclic Redundancy Check) bit stream to the dummy bit stream.

15 2. The method as claimed in claim 1, wherein the dummy bit stream is equal in a number of bits to data bits transmitted over the dedicated physical data channel when the transmission data is present.

20 3. The method as claimed in claim 1, wherein the dummy bit stream has a predetermined number of bits.

25 4. A method for transmitting a dedicated physical data channel signal over a dedicated physical data channel in the absence of transmission data to be transmitted over the dedicated physical data channel in order to properly maintain a target SIR when there exists new transmission data after the absence of the transmission data in a CDMA mobile communication system, comprising the steps of:

generating a dummy bit generation request signal in the absence of the transmission data;

30 upon receipt of the dummy bit generation request signal, generating a dummy bit stream, and generating a matrix by sequentially receiving in a row a first bit stream created by attaching a CRC (Cyclic Redundancy Check) bit stream to the dummy bit

stream and dedicated physical data channel signals to be transmitted over one or more additional dedicated physical data channels being different from said dedicated physical data channel; and

5 performing interleaving to delete bits corresponding to the dummy bit stream by performing column permutation on the matrix, and mapping the interleaved signal to the dedicated physical channel signal.

10 5. The method as claimed in claim 4, wherein the dummy bit stream is equal in bit number to data bits transmitted over the dedicated physical data channel when transmission data is present.

6. The method as claimed in claim 4, wherein the dummy bit stream has a predetermined number of bits.

15 7. An apparatus for transmitting a dedicated physical data channel signal over a dedicated physical data channel in the absence of transmission data to be transmitted over the dedicated physical data channel in order to properly maintain a target SIR when there exists new transmission data after the absence of the transmission data in a CDMA mobile communication system, comprising:

20 a controller for generating a dummy bit generation request signal in the absence of the transmission data;

a dummy bit generator for generating a dummy bit stream upon receipt of the dummy bit generation request signal;

25 a CRC (Cyclic Redundancy Check) attachment part for attaching a CRC bit stream to the dummy bit stream; and

a channel multiplexing part for mapping a first bit stream created by attaching the CRC bit stream and the dummy bit stream to the dedicated physical data channel.

30 8. The apparatus as claimed in claim 7, wherein the dummy bit stream is equal in bit number to data bits transmitted over the dedicated physical data channel when the transmission data is present.

9. The apparatus as claimed in claim 7, wherein the dummy bit stream has a predetermined number of bits.

10. An apparatus for transmitting a dedicated physical data channel signal over a dedicated physical data channel in the absence of transmission data to be transmitted over the dedicated physical data channel in order to properly maintain a target SIR when there exists new transmission data after the absence of the transmission data in a CDMA mobile communication system, comprising:

5 a controller for generating a dummy bit generation request signal in the absence of the transmission data;

10 a dummy bit generator for generating a dummy bit stream upon receipt of the dummy bit generation request signal;

15 a CRC attachment part for attaching a CRC bit stream to the dummy bit stream; and

20 a channel multiplexing part for generating a matrix by sequentially receiving in a row a first bit stream created by the CRC bit stream and the attached dummy bit stream and other dedicated physical data channel signals, interleaving to delete bits corresponding to the dummy bit stream by performing column permutation on the matrix, and mapping the interleaved signal to a dedicated physical data channel.

25 11. The apparatus as claimed in claim 10, wherein the dummy bit stream is equal in bit number to the data bits transmitted over the dedicated physical data channel when the transmission data is present.

12. The apparatus as claimed in claim 10, wherein the dummy bit stream has a predetermined number of bits.